

APPENDIX F

TOTAL DISSOLVED SOLIDS CONCENTRATION AND LOAD GRAPHS

TDS CONVERSION

Table F-1 EC to TDS Conversion Equations

Notes: TDS values were converted from electrical conductivity measurements because the much greater frequency of EC measurements allowed for a more comprehensive data set. The conversion equations for the benchmark locations (shown in Table E-1) were developed specifically for those locations. The conversion equation used for the NEMD and SRWTP discharges used a conversion factor of 0.8.

BENCHMARK LOCATIONS

Figure F-1 Banks Computed TDS Concentration: 1/90 - 7/93

Notes: TDS concentrations at Banks range from 100 to about 475 mg/l. Mostly, concentrations are in the range of 300 to 350 mg/l. The only apparent seasonal trend is somewhat lower concentrations in the late spring/ early summer.

Figures F-2 and F-3 Greene's Landing Computed TDS Concentration and Load: 7/90 - 8/93

Notes: TDS concentrations range from 40 to 130 mg/l, but are mostly around 100 mg/l. Unlike Banks, concentrations appear to be somewhat higher in the spring.

Figures F-4 and F-5 Vernalis Computed TDS Concentration and Load: 7/90 - 8/93

Notes: TDS concentrations range from 140 to over 700 mg/l at Vernalis and are mostly in the 400 to 500 mg/l range. Concentrations correlate with flow. At high flows, the concentrations are lower.

SACRAMENTO BASIN AGRICULTURAL DISCHARGES

Figure E-6 Natomas East main Drain Computed TDS Concentration: 10/89 -9/93

Notes: TDS concentrations range from about 200 to 700 mg/l but are generally in the 400 to 500 mg/l range. Like the Sacramento River at Greene's Landing, concentrations appear to peak in the spring months.

Figure E-7 Sacramento Slough TDS load: 10/89 -9/93

Figure E-8 Colusa Basin Drain TDS load: 10/89 -9/93

SACRAMENTO REGIONAL WASTEWATER TREATMENT PLANT DISCHARGES

Figures E9 and E-10 Sacramento Regional Wastewater Effluent computed TDS concentration and load: 9/91 - 8/93

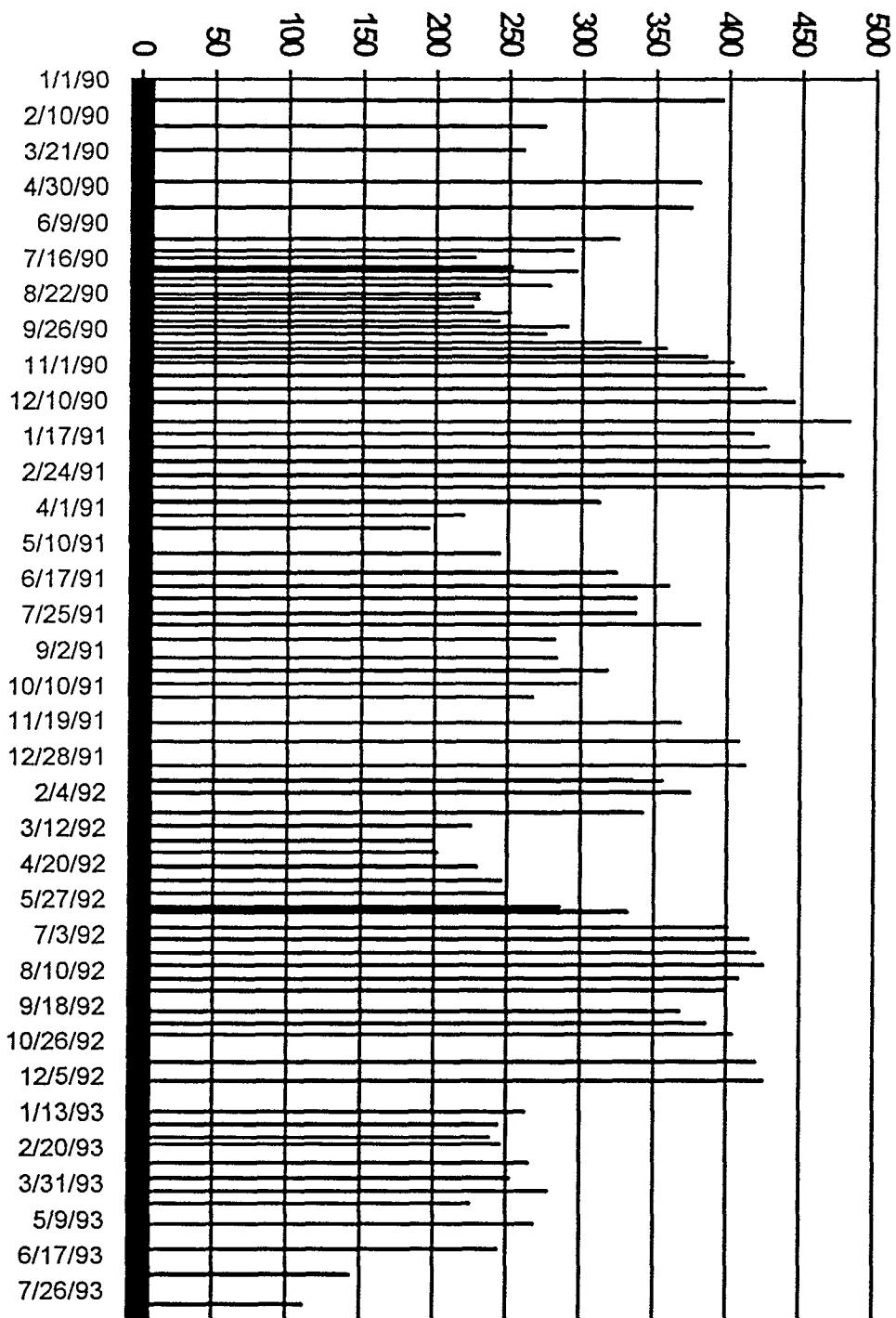
Notes: Concentrations are fairly flat and are generally around 500 to 600 mg/l.

Table F-1. EC to TDS Conversion Equations^a

Sacramento River at Greene's Landing (RSAC139)		
Wet water years	$TDS = 35.58 + (0.385575 \times EC)$	EC limits 64 - 308
Normal water years	Insufficient data	
Dry water years	Insufficient data	
All water years	$TDS = 38.97 + (0.375404 \times EC)$	EC limits 64 - 356
Banks Headwords (used Clifton Court intake - West Canal CHWST0)		
Wet water years	$TDS = 8.5 + (0.539136 \times EC)$	EC limits 153 - 1320
Normal water years	Insufficient data	
Dry water years	$TDS = 23.1 + (0.525874 \times EC)$	EC limits 179 - 1480
All water years	$TDS = 19.2 + (0.528851 \times EC)$	EC limits 153 - 1480
San Joaquin River near Vernalis (RSAN112)		
Wet water years	$TDS = 6.69 + (0.550722 \times EC)$	EC limits 217 - 1740
Normal water years	$TDS = 2.53 + (0.576392 \times EC)$	EC limits 153 - 843
Dry water years	$TDS = 5.52 + (0.583542 \times EC)$	EC limits 263 - 1850
All water years	$TDS = -2.67 + (0.583793 \times EC)$	EC limits 140 - 1850

^aThe conversion formulae were statistically developed by DWR (P. Lee, memorandum dated September 4, 1986, Salinity Conversion Equations). The equations used in this study are shown in bold face.

Figure F-1. Banks Pumping Plant Computed TDS Concentration,
1990–1993 (mg/l)



D - 0 3 6 6 9 2

D-036692

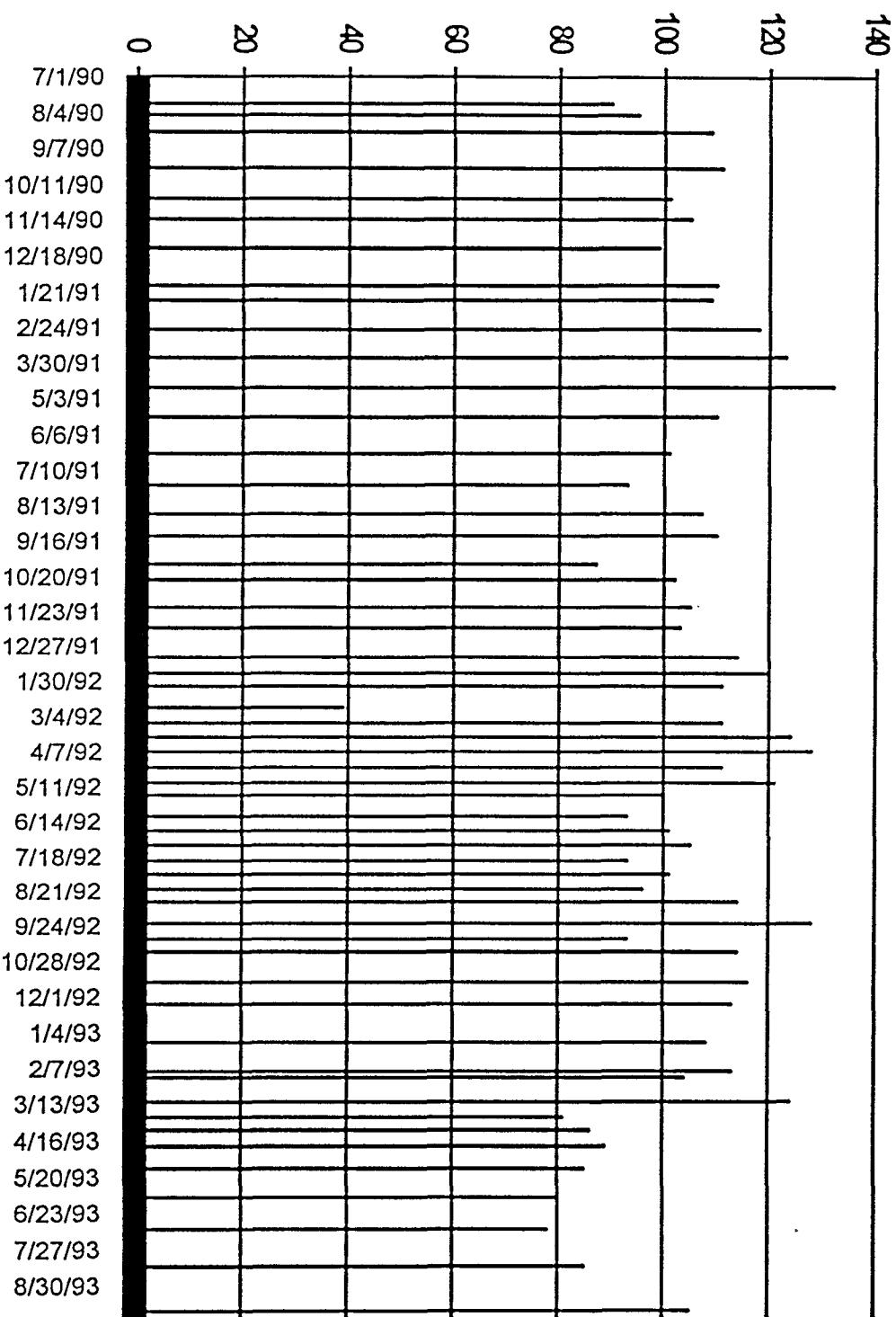


Figure F-2. Greene's Landing Computed TDS Concentration,
1990-1993 (mg/l)

D - 0 3 6 6 9 3

D-036693

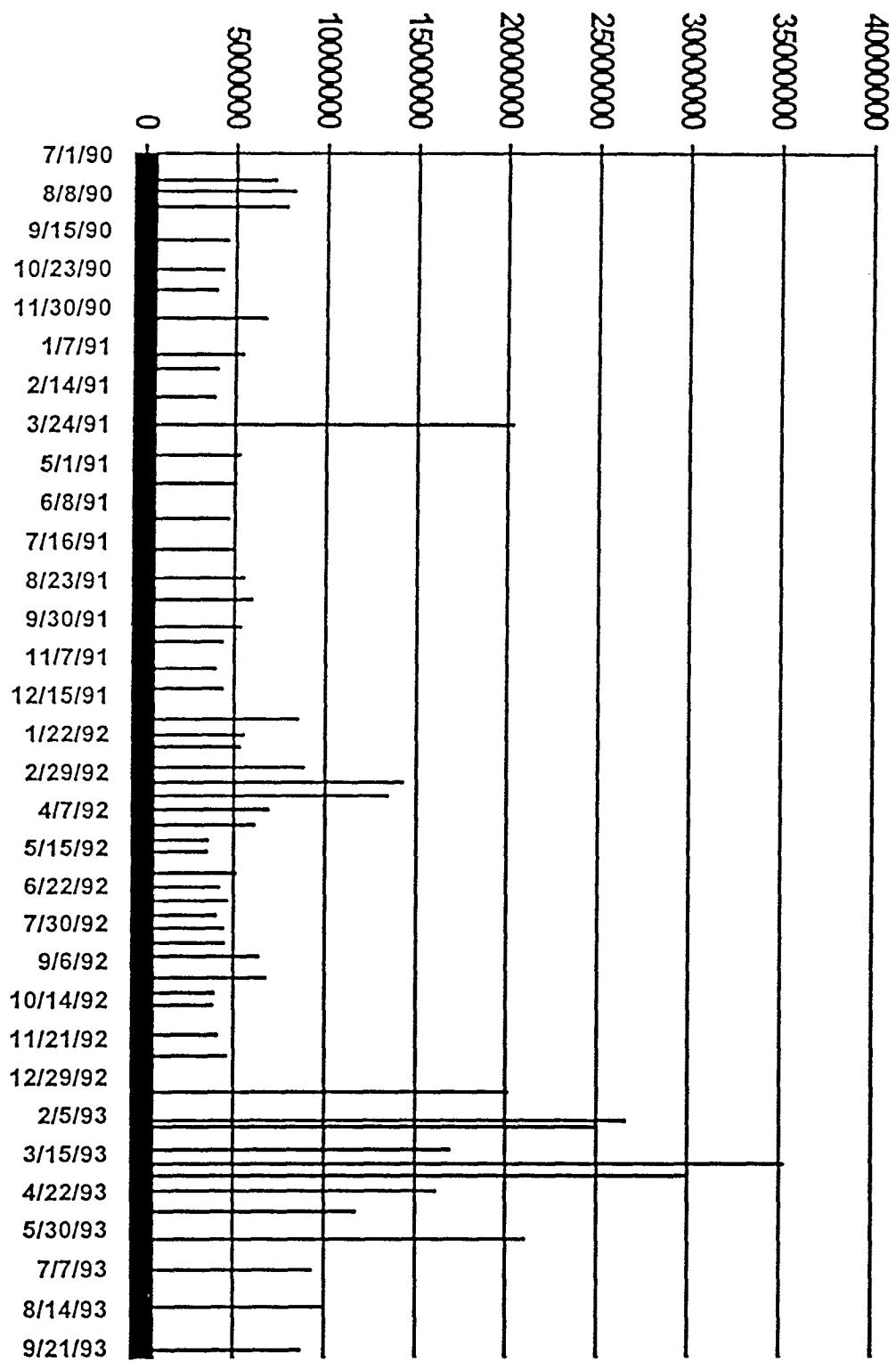
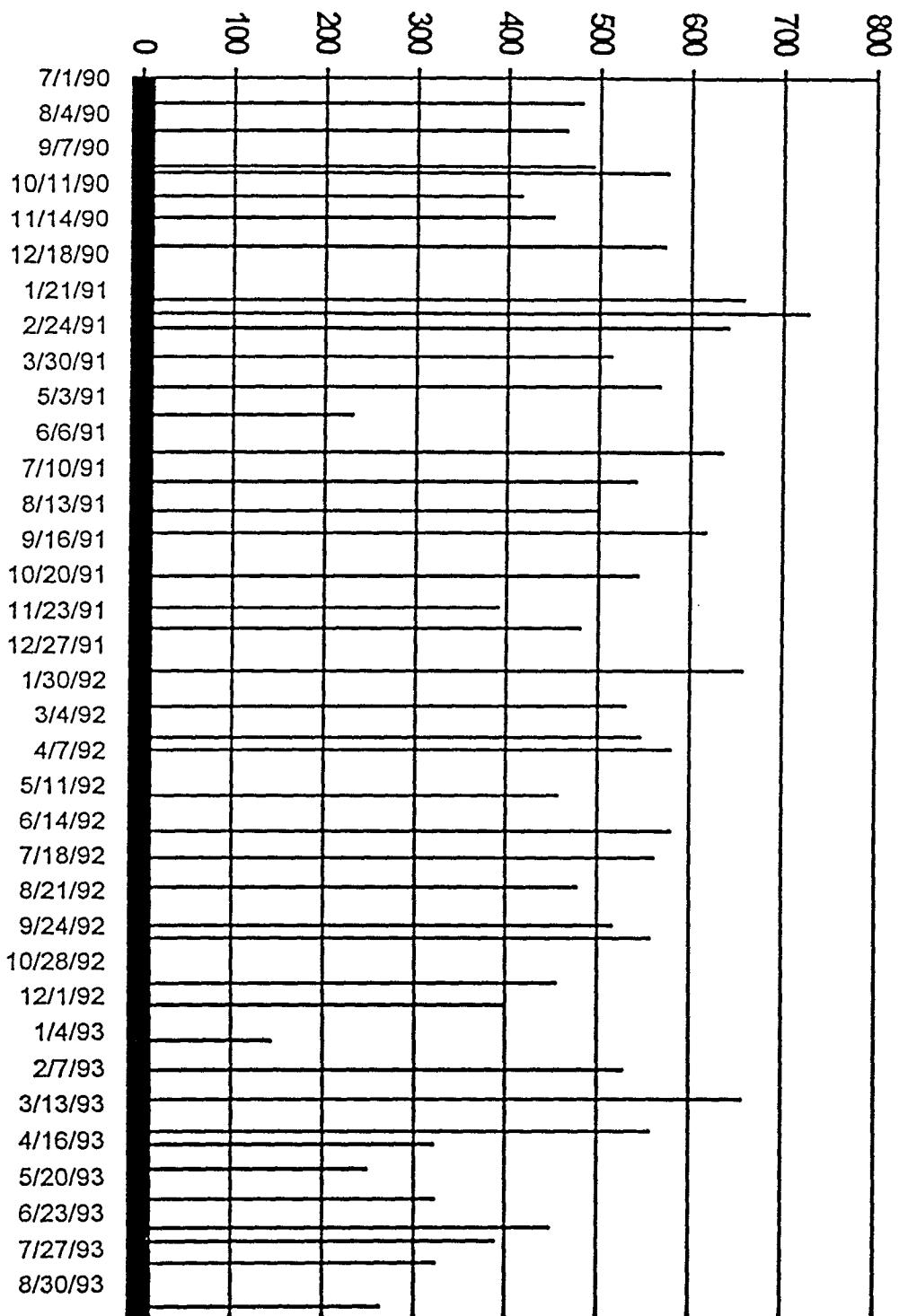


Figure F-3. Greenes Landing TDS Load, 1990–1993 (lbs/day)

D - 0 3 6 6 9 4

D-036694

Figure F-4. Vernalis Computed TDS Concentration, 1990–1993 (mg/l).



D — 0 3 6 6 9 5

D-036695

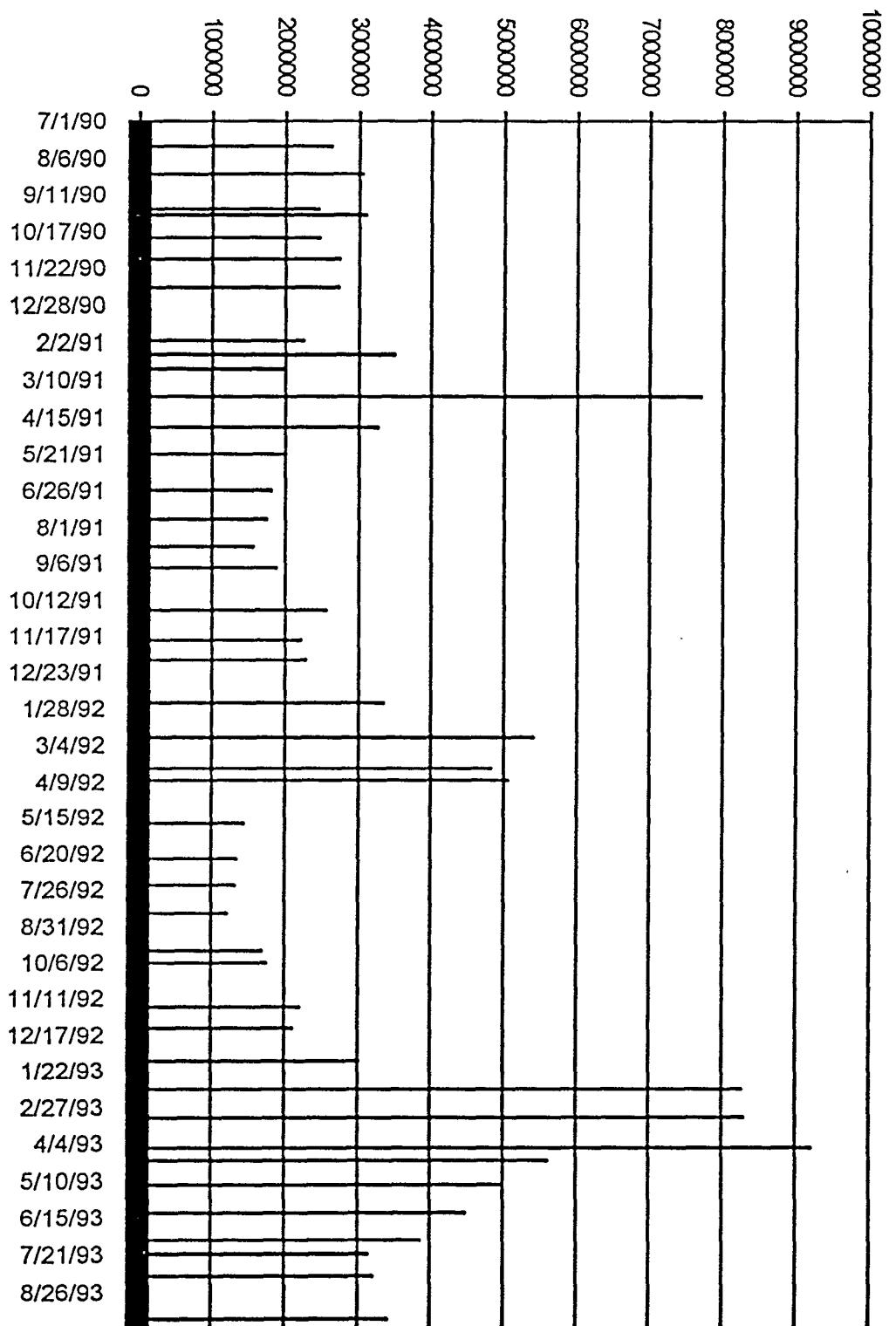
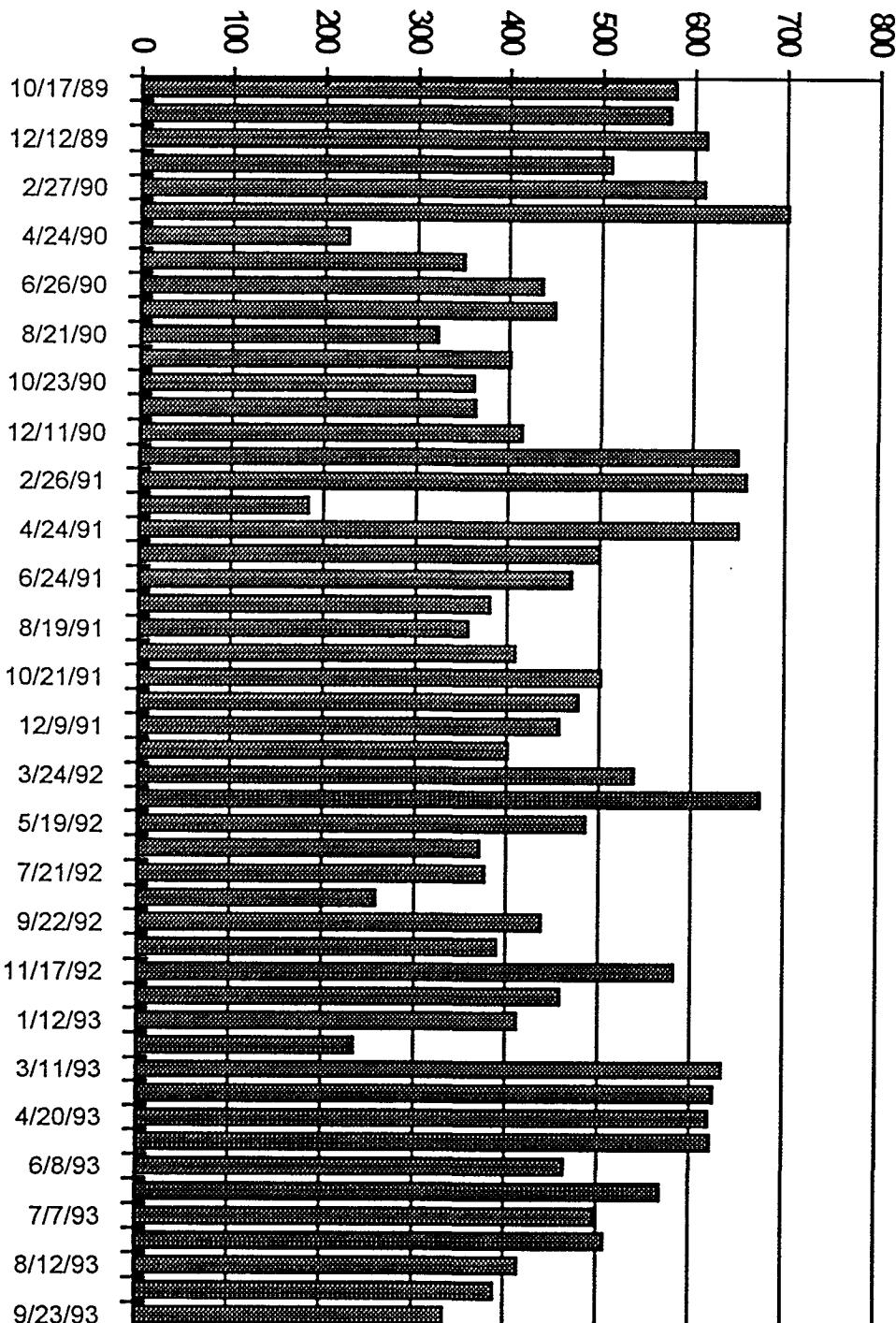


Figure F-5. Vernalis TDS Load, 1990-1993 (lbs/day)

D - 0 3 6 6 9 6

D-036696

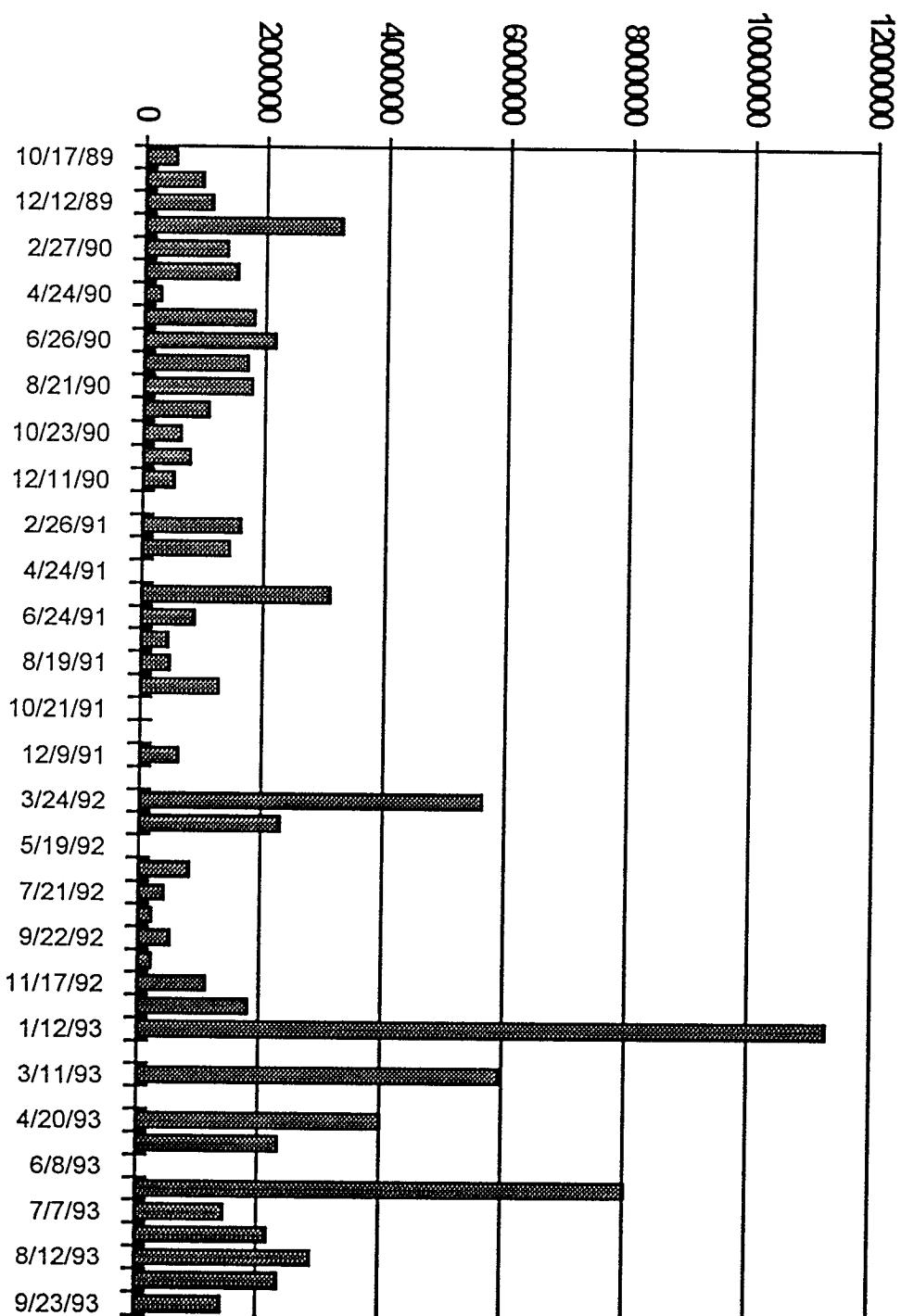
Figure F-6. Natoma East Main Drain Computed TDS Concentration,
1989-1993 (mg/l)



D - 0 3 6 6 9 7

D-036697

Figure F-7. Sacramento Slough TDS Load, 1989-1993 (lbs/day)



D - 0 3 6 6 9 8

D-036698

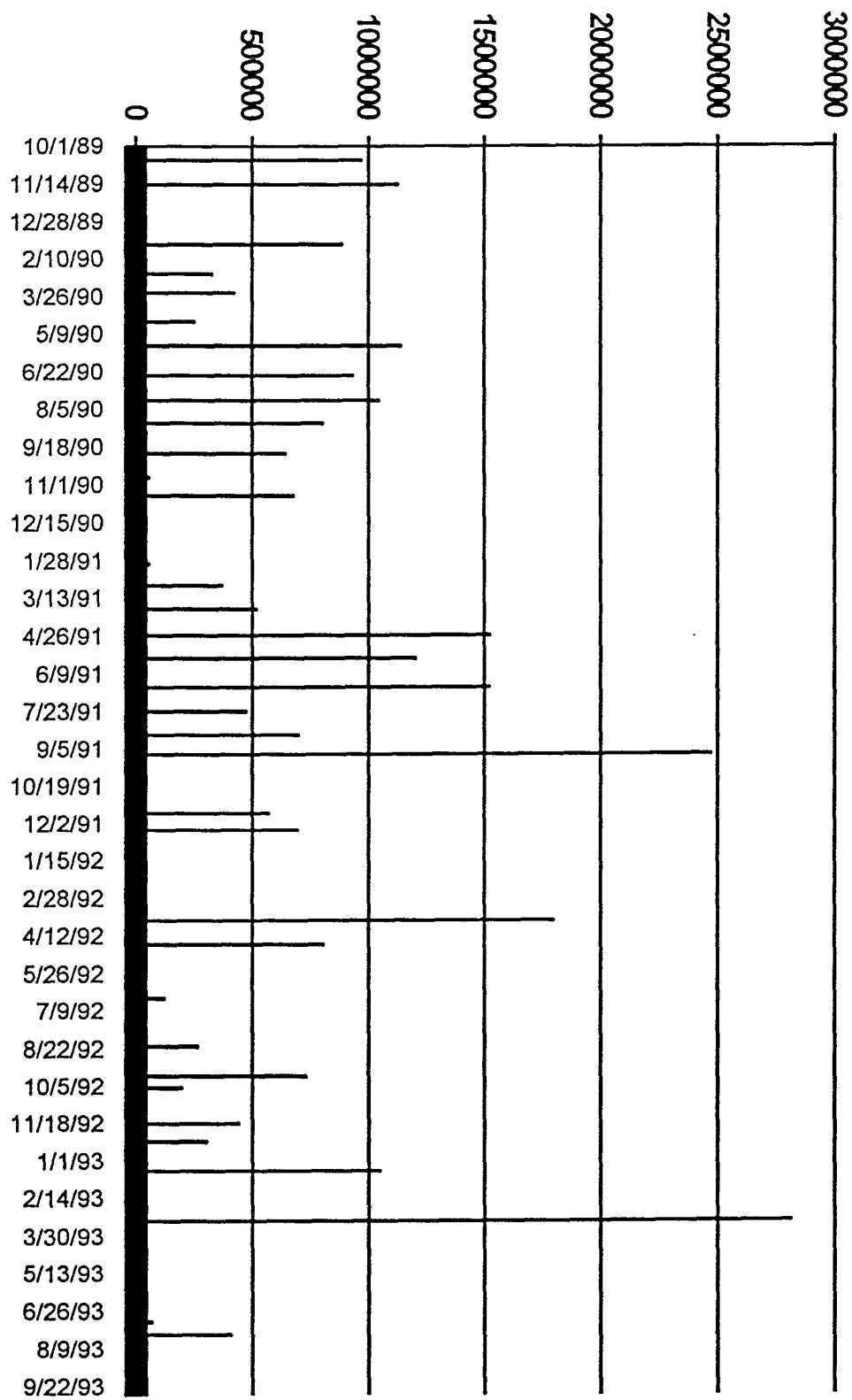
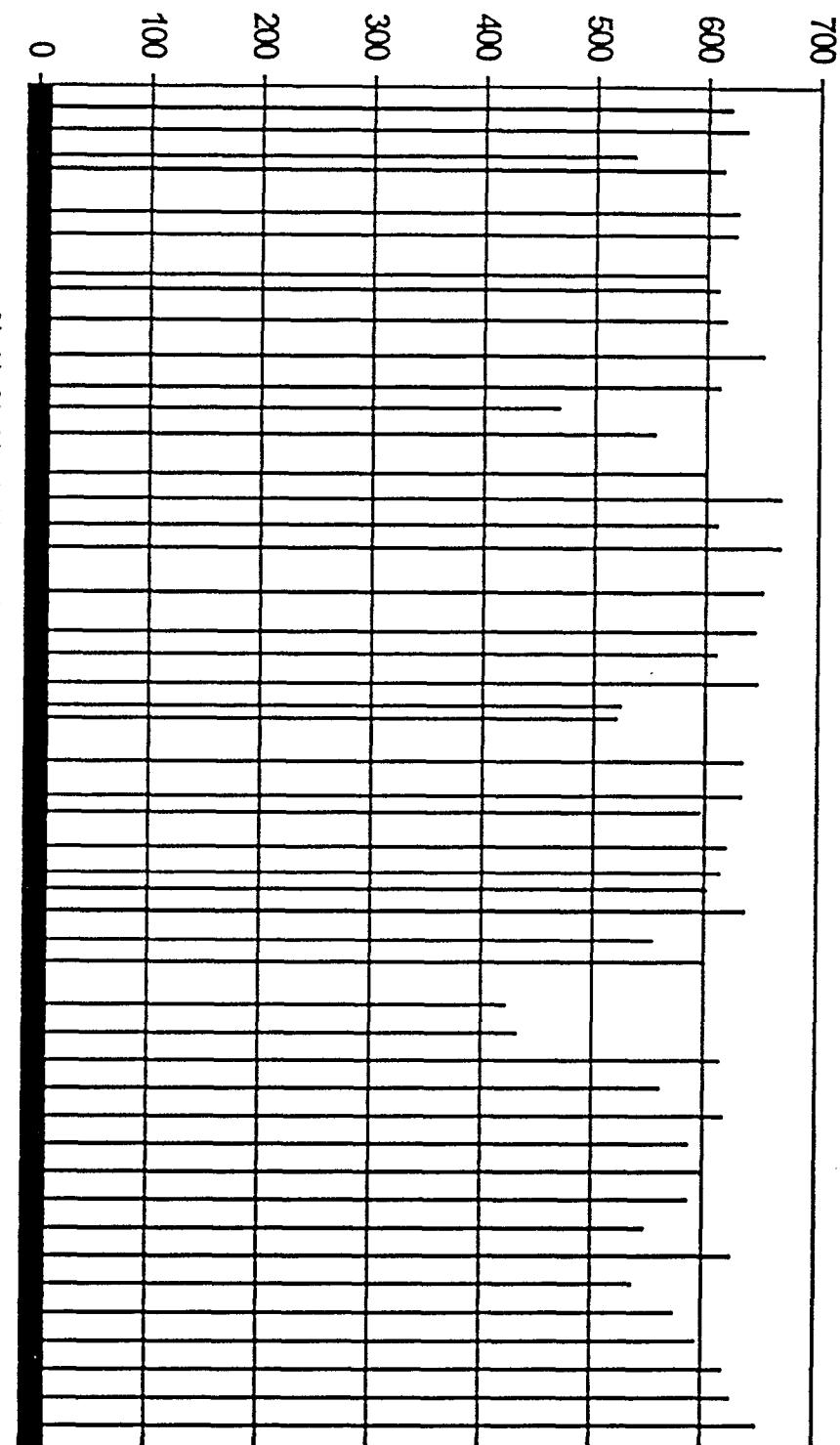


Figure F-8. Colusa Basin Drain TDS Load, 1989-1993 (lbs/day)

D - 0 3 6 6 9 9

D-036699

Figure F-9. Sacramento Regional Wastewater Effluent Computed
TDS Concentration, 1991-1993 (mg/l)



D - 0 3 6 7 0 0

D-036700

Figure F-10. Sacramento Regional Wastewater Effluent TDS Load,
1991-1993 (lbs/day)

